03/22/2001 **NAME:**

MATH 1151 QUIZ-9 (10 minutes)

1.(10 points) Prove that the area A of a triangle is given by the formula $A = \frac{a^2 \sin\beta \sin\gamma}{2 \sin\alpha}$.

Solution: Now by Sinus Law $b = \frac{a \sin\beta}{\sin\alpha}$ and $c = \frac{a \sin\gamma}{\sin\alpha}$. Also area $A = \frac{b*c*\sin\alpha}{2}$, so replacing b and c in A we see that $A = \frac{a^2 \sin\beta \sin\gamma}{2 \sin\alpha}$. **Q.E.D.**